

FETF 62862

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Vasel et al. )  
Serial No.: 09/289,258 )  
Filed: 4/9/99 )  
For: NON-LETHAL PROJECTILE )  
FOR DELIVERING AN )  
INHIBITING SUBSTANCE TO )  
A LIVING TARGET )  
Group Art )  
Unit: 3641 )  
Examiner: Tudor, H. )

DECLARATION PURSUANT TO 37 C.F.R. § 1.131

Hon. Commissioner for Patents  
Washington, D.C. 20231

Sir:

We, Edward J. Vasel, Scott C. Nunan, Gregory A. Niederhaus and Peter G. Coakley, declare as follows:

1. Edward J. Vasel is currently an employee of Jaycor Tactical Systems, Inc. (hereafter referred to as "JTS"), and previously an employee of Jaycor.

2. Scott C. Nunan, Gregory A. Niederhaus and Peter G. Coakley are currently employees of Jaycor.

3. We all are joint inventors of the invention as variously described and claimed in U.S. Patent Application No. 09/289,258. At the time of the invention of

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the subject matter of the present application, we were all employees of Jaycor.

4. We declare that projectiles covered by the pending claims of U.S. Patent Application No. 09/289,258 were manufactured and tested prior to March 9, 1999. We also declare that at least prior to March 9, 1999, we recognized the inventive aspects of the projectiles and that the projectiles would work for their intended purpose.

5. We note that all dates present on the exhibits attached hereto have been blacked out; however, we declare that all blacked out dates are dates prior to March 9, 1999.

6. Attached as pages A1-A2 of Exhibit A is a copy of Purchase Order No. 134127 to Perfect Circle Paintball, Inc. for 15,000 powder filled frangible projectiles (pages A3-A4 are a reprint of this purchase order) to be made in accordance with the Spec. Sheet on page A5 of Exhibit A. This order was covered by a Non-Disclosure Agreement as indicated on page A1 and A3 of Exhibit A and was for the purpose of producing projectiles for testing purposes. This Purchase Order and Spec. Sheet existed prior to March 9, 1999.

7. The Spec. Sheet on page A5 of Exhibit A indicates that the projectiles will be made similar to

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powder-filled "Type C" design projectiles, but without the ballast weight.

8. Type C projectiles are illustrated on page B1 of Exhibit B as projectiles having a spherical shell having a thickness and that includes a volume formed within the shell. The volume is filled completely full with an inhibiting substance made up of pepper powder and a ballast weight. The illustration of Exhibit B existed prior to March 9, 1999.

9. The Spec. Sheet on page A5 of Exhibit A further specifies that projectiles will be volume filled to at least 75% full or better with inert or OC (oleoresin capsicum) powder, which will be provided to the manufacturer. The projectiles include frangible plastic spheres having a 0.68" nominal outside diameter. The Purchase Order is for 10,000 "blue" projectiles containing an inert substance and 5,000 "red" projectiles containing active powder OC.

10. Furthermore, pages C1 and C2 of attached Exhibit C provide a memo from Edward J. Vasel to Peter G. Coakley indicating that Perfect Circle Paintball, Inc. would be able to produce prototype, polystyrene Pepperballs containing powdered OC. Thus, the projectiles to be made by Perfect Circle Paintball, Inc., including the projectiles of the invoice of Exhibit A were to be made of a rigid plastic

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material, i.e., polystyrene. The memo of Exhibit C existed prior to March 9, 1999.

11. In discussions with personnel at Perfect Circle Paintball, Inc. and as conceived, these projectiles were to be designed rupture upon impact with a target and release the powdered contents of the shell into a cloud about the target. The projectiles to be made by Perfect Circle Paintball, Inc. were also to be launched from a compressed gas launcher, such as a paintball launcher. These projectiles were not designed to be launched from a gunpowder propelled weapon, such as a firearm or shotgun. For example, the projectiles would burst if fired from within a cartridge containing an ignitable powder.

12. Pages D1 and D2 of attached Exhibit D provide an invoice for the receipt of 20 pounds of powdered oleoresin capsicum (OC) in a 6 gallon drum. Portions of this OC powder was sent to the manufacturer as specified in the Spec. Sheet on page A5 of Exhibit A. This invoice existed prior to March 9, 1999.

13. Page E1 of attached Exhibit E is an invoice for the receipt of 10,000 simulant projectiles (i.e., blue inert powder projectiles) pursuant to the purchase order of Exhibit A. Receipt of these 10,000 projectiles occurred prior to March 9, 1999.

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14. Page F1 of attached Exhibit F is an invoice for the receipt of 5,000 active projectiles (i.e., red OC powder-filled projectiles) pursuant to the purchase order of Exhibit A. Receipt of these 5,000 projectiles occurred prior to March 9, 1999.

15. Exhibit G is a recently taken photograph of several "blue" and "red" projectiles received in the invoices of Exhibits E and F. These projectiles were received by Jaycor and existed prior to March 9, 1999. Although, it is not visible in the photograph, these projectiles are filled at least 75% full of powdered material.

16. Page H1 of Exhibit H is a summary of a series of tests performed prior to March 9, 1999 using the projectiles of the invoices of Exhibits E and F. These tests covered projectile weight distribution tests, temperature tolerance tests, kinetic energy tests at various velocities, accuracy tests at various distances and powder dispersion tests.

17. Exhibit I is a photograph of a powder dispersion test performed prior to March 9, 1999 in which a mannequin was impacted with one of the projectiles of the invoices of Exhibits E and F. The projectile was launched from a compressed gas launcher. Upon impact with the mannequin's chest, the projectile ruptured and released a cloud of powdered substance. As illustrated, the dispersing

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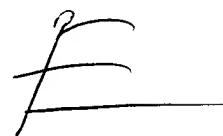
substance released a cloud of about 2-3 feet in diameter and was sufficient to contact the facial area of the mannequin.

18. Furthermore, numerous tests were performed, both on mannequins and live persons, using the projectiles received with the invoices of Exhibits E and F prior to March 9, 1999 to study the effectiveness of these projectiles. Prior to March 9, 1999, all of the co-inventors had either witnessed one or more of these tests, reviewed and discussed test results, and/or reviewed notes or video tapes of the tests. Prior to March 9, 1999, all co-inventors have been exposed to powdered oleoresin capsicum and understand its effect when inhaled. Prior to March 9, 1999, at least one of the co-inventors has been shot with one of the red projectiles. Thus, prior to March 9, 1999, we fully appreciated the utility of the projectiles and that they would work for their intended purpose as a non-lethal irritant system for law enforcement.

19. We have reviewed the pending claims of the present application, and in particular, we have reviewed the independent Claims, Claims 193 and 203, in view of the projectiles described above. Therefore, we declare that a projectile meeting the elements of the pending claims in U.S. Patent Application No. 09/289,258 physically existed prior to March 9, 1999 and that this projectile worked for its intended purpose as a non-lethal system for law enforcement use and that the invention was appreciated prior to March 9, 1999.

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20. Additionally, pages J1-J9 of attached Exhibit J is an article published in the Journal of Forensic Science specifying the main ingredients or capsaicinoids found in oleoresin capsicum. Table 2 on page J5 indicates that oleoresin capsicum includes capsaicin, dihydrocapsaicin (DHC), nordihydrocapsaicin (NDHC), homocapsaicin (HC), homodihydrocapsaicin (HDHC), and nonivamide.

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